DOCUMENT RESUME

ED 344 167 CG 024 160

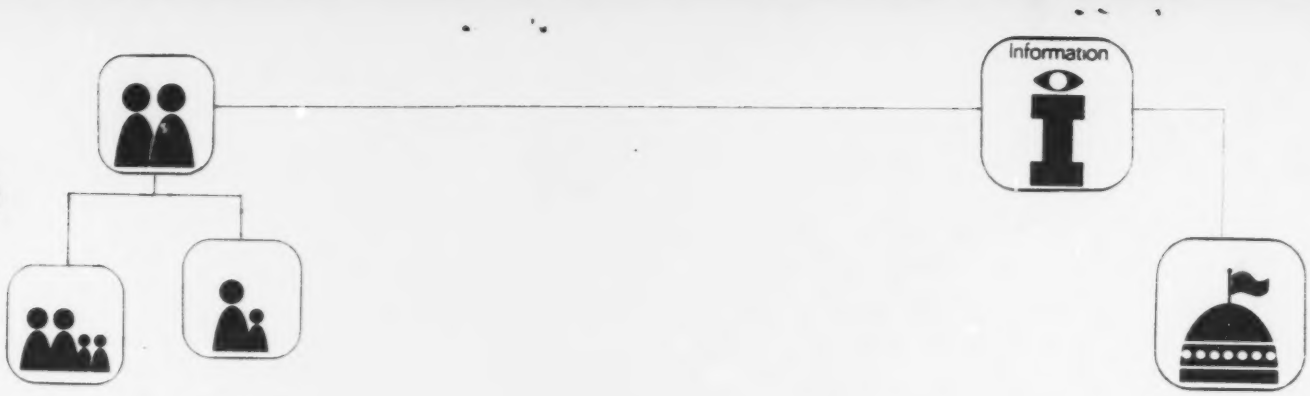
AUTHOR Ooms, Theodora; Herendeen, Lisa
TITLE Teenage Pregnancy Prevention Programs: What Have We Learned? Meeting Highlights and Background Briefing Report. Report of a Family Impact Seminar (Washington, D.C., May 26, 1989).
INSTITUTION American Association for Marriage and Family Therapy, Washington, DC. Research and Education Foundation.; Family Impact Seminar (FIS), The AAMFT Research and Education Foundation, Washington, DC.
SPONS AGENCY Consortium of Family Organizations.; Mott (C.S.) Foundation, Flint, Mich.
PUB DATE 90
NOTE 33p.
AVAILABLE FROM Family Impact Seminar, 1100 17th St., NW, Suite 901, Washington, DC 20036 ($10.00).
PUB TYPE Reports - General (140)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adolescents; *Early Parenthood; Family Planning; Federal Government; Government Role; *Pregnancy; *Prevention; Program Development; Program Effectiveness; *Program Evaluation; Secondary Education; Sex Education

ABSTRACT

This report contains highlights from a seminar on teenage pregnancy prevention programs. Comments by these panelists are summarized: Kristin Moore, senior research associate, Child Trends, Inc.; Dennis McBride, consultant for the Adolescent Family Life Office; Susan Newcomer, consultant for the National Institute of Child Health and Development; and Karen Pittman, director, Adolescent Pregnancy Prevention Policy Division, Children's Defense Fund. These topics, discussed at the seminar, are summarized: (1) trends in adolescent pregnancy and the lack of a clear idea of what works in pregnancy prevention; (2) problems in program evaluation and efforts to increase quality evaluation; (3) difficulties of teenage pregnancy programs in producing measurable results; and (4) life options programs which offer a comprehensive solution that combines traditional methods of prevention (sexuality education and contraception) with improvements in education, job-training, and community development. A background briefing report is also included which contains information about selected trends, determinants of teenage pregnancy, goals and types of pregnancy prevention programs, evaluation of teenage pregnancy programs, sex education programs, family planning programs, life options programs, family involvement as a pregnancy prevention strategy, and the federal role in prevention of teenage pregnancy. (41 references) (LLL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****



ED344167

Teenage Pregnancy Prevention Programs: What Have We Learned?

May 26, 1989, Mansfield Room (S.207), the U.S. Capitol

Panelists: **Kristin Moore, Ph.D.,** senior research associate, Child Trends Inc.
Karen Pittman, Ph.D., director, Adolescent Pregnancy Prevention Policy Division, Children's Defense Fund
Susan Newcomer, Ph.D., consultant, Demographic and Behavioral Sciences Branch, National Institute for Child Health and Development
Dennis McBride, Ph.D., public health consultant, Adolescent Family Life Office, HHS

Moderator: **Theodora Ooms,** Director, Family Impact Seminar

---

MEETING HIGHLIGHTS.....page i to v
BACKGROUND BRIEFING REPORT.....pages 1 to 22

CG024160

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Todd Owen

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Teenage Pregnancy Prevention Programs: What Have We Learned?

Background Briefing Report
and
Meeting Highlights

Theodora Ooms and Lisa Herendeen

This policy seminar is one in a series of monthly seminars for policy staff titled, *Family Centered Social Policy: The Emerging Agenda*, conducted by the **Family Impact Seminar**, American Association for Marriage and Family Therapy, Research and Education Foundation, 1100 Seventeenth Street, N.W., The Tenth Floor, Washington, D.C. 20036, 202/467-5114

This seminar was co-sponsored by the Consortium of Family Organizations and funded by the C.S. Mott Foundation.

COFO Members:
American Association for Marriage and Family Therapy (AAMFT)
American Home Economics Association (AHEA)
Family Resource Coalition (FRC)
Family Service America (FSA)
National Council on Family Relations (NCFR)

Copyright © 1990
The Family Impact Seminar (FIS), The AAMFT Research and Education Foundation, Washington, D.C.
All Rights Reserved.

This Background Briefing Report may be photocopied for education, teaching, and dissemination purposes provided that the proper attribution is prominently displayed on the copies. If more than 50 copies are made, FIS must be notified in writing, prior to duplication, of the number of copies to be made and the purpose of the duplication.

TABLE OF CONTENTS

	Page
Highlights of Seminar	i-v
Introduction	1
Goals and Types of Pregnancy Prevention Programs	3
Evaluation of Teen Pregnancy Programs	4
• What has been learned?	6
• Sex education programs	7
• Family planning programs	9
• Life options programs	12
• Family involvement	13
The Federal Role in Prevention of Teen Pregnancy	15
Selected References	17
Figure 1 Decisions and Outcomes in Teen Sexualtiy and Pregnancy	21
Figure 2 Teen Pregnancy, Births and Abortion Ages 15 - 19 1973 - 1975	22

Teen Pregnancy Prevention Programs: What Have We Learned?

Highlights of the seminar meeting held on May 26, 1989, U.S. Capitol
(a supplement to the Background Briefing Report)

Over the past decade the Federal government has spent considerable amounts of money on programs to prevent teen pregnancy. A decade later policymakers are asking: which of these programs work and for what reasons? To examine the most recent research on teen pregnancy prevention programs, the Family Impact Seminar gathered four experts in research and evaluation for its sixth seminar held on May 26, 1989. The panelists discussed some encouraging results from the good quality evaluations that have been conducted; but they lamented the scarcity of good evaluations and the fact that evaluations in general have been underfunded.

Kristin Moore, senior research associate, Child Trends Inc., presented a brief overview of the trends in adolescent pregnancy in the United States and went on to describe why, after 15 years of programs devoted to prevent teen pregnancy, we still do not have a clear idea of what works.

The trends for teenage pregnancy in America are distressing. U.S. abortion and pregnancy rates show little improvement over the last decade and our rates are high compared with other modern industrialized democracies.

Moore noted that there are two points of intervention at which programs can attempt to reduce pregnancy. Programs can either try to teach kids to postpone the initiation of sexual activity or try to increase use of contraceptives among the sexually active. Often both approaches are used. Programs can either work to increase information, provide services, and/or to enhance the motivation of youth to avoid early parenthood.

Moore outlined reasons why we know so little about how and why prevention programs work and for whom they are most successful. She pointed out that there have been good intentions on the part of policy makers to evaluate programs. The Adolescent Family Life Act of 1981, and its precursor program, called for the demonstration programs to conduct evaluations. Yet, with a couple of exceptions, said Moore, very few credible evaluations have emerged. Moore blames the lack of good evaluations on several factors.

- Service providers are concerned with helping youth, not with obtaining data about them. Also, they often do not understand the need for evaluation or how to conduct an evaluation, and most private funders did not require evaluations until recently.

- Evaluation research has low status in academic circles and thus has attracted few top-notch researchers.

- The Federal government has not insisted upon rigorous evaluations; nor has it provided a sufficiently high level of funding to conduct useful evaluations. Demonstration projects funded through the Adolescent Family Life Office (AFL) could spend at a maximum only about 3-5 % (approximately $5,000 to $15,000) annually on evaluation.

Moore contends that it would be far more efficient to evaluate a sub-set of the projects and do it right than to have each program attempt to evaluate itself. Moore was pleased that the Kennedy bill amending the AFL program (S.120) had at least increased the amount set aside for evaluation to

10%. She also supported language in the Kennedy bill expanding the definition of research to include evaluation research. Since as much as one-third of the AFL program's money can be used for research, this would be a way to enhance evaluation. Also, she suggested the ceiling on evaluation costs be raised to $200,000.

Dennis McBride, Ph.D., a consultant for the Adolescent Family Life Office who has directed efforts to strengthen their demonstration programs' evaluation, agreed with Moore that the limitation of 1-5% of the federal share for evaluation at each site has not been sufficient to generate quality evaluations. A good evaluation costs much more, said McBride, but some programs have been able to subsidize their evaluations with private foundation money and volunteer help.

McBride described a number of ways that the AFL office worked with the programs and their evaluators to address problems and encourage better evaluations. Some of these problems were: failure to clarify objectives, absence of comparison/control groups, high attrition rates, or no attrition rates reported. In order to improve the evaluations, in recent years AFL has supported annual technical assistance workshops for the evaluators and program administrators. To illustrate the workshops' effectiveness, McBride said that before the workshops less than 20% of prevention project evaluations were using comparison groups. Currently 60% are using comparison groups.

Another effort of AFL to improve evaluations has been the development of a systematic way of collecting information among all programs. AFL has developed a core evaluation data set plan so that programs would ask the same questions in the same way and then enter the computerized data from each program into a central Data Archive so that the results of the different programs can be collected and compared.

McBride spoke about some encouraging findings from a few of the more than 50 programs funded by the AFL Office that promote abstinence (see background briefing report). For example, among the most promising are results from the Postponing Sexual Involvement Program (PSI) in Georgia which shows significant progress in postponing teens' first intercourse. Emphasizing its high level of parent involvement, he described the program for 8th graders as having three steps: a human sexuality course, skill-building and peer counseling emphasizing abstinence, and access to reproductive health services for those teens who desire them (*see Howard and Blamey, 1988 below).

Overall, the AFL abstinence programs report a high rate of success in increasing parent/child communication, however, the evaluations do not test whether the increase in communication causes a decrease in sexual behavior. Projects also report a high rate of success in increasing knowledge about sexuality. Some projects also show positive effects on clients' values, and on intention to postpone sexual activity.

Susan Newcomer, a consultant for the National Institute of Child Health and Development, outlined some of the difficulties teen pregnancy programs encounter in producing measurable results from their programs. Program goals need to be specific, she said, and evaluations for a program should be built in at the program's inception. As an example, she said if a program decides that a "decline in teen births" is its goal, it will run into difficulty because the goal is so vague. If teens move elsewhere or have more abortions the birth rate will fall. Neither are acceptable solutions. She said a program goal such as "a decline in teen pregnancy rates" is a bit better as a goal. But, then program administrators have to answer questions like: by how much? and over how long a time? and is there money to track the pregnancy rates? Tracking teen pregnancy rates, she added, means looking at miscarriage and abortion rates as well, since a sizeable proportion of teen pregnancies end with abortions or miscarriages.

Newcomer noted that although evaluation of sexuality education programs is still new the research to date indicates that prevention programs do increase knowledge but do *not* change attitudes. As evidence she referred to several programs mentioned in the background briefing report which provide some positive evaluation results for prevention programs. An additional study she mentioned was done by Marv Eisen, of Sociometrics Corp. (see ref. Card, J.J. p. 17) who examined a multi-site, 8-10 hour educational intervention program in Texas and California, which was given to 1500 young people ages 13-18. Unpublished recent findings are that those who were virgin at the time of the pretest were likely to stay virgin, and those who had had intercourse, were more likely to become consistent contraceptors. Also she said that school-based clinics which provide education and access to contraceptives seem to both raise the age at first intercourse for teens and to lower the rate of pregnancy and births.

Newcomer also discussed her own difficulties as a consultant in trying to evaluate a diverse package of teen pregnancy prevention programs in the city of Baltimore on a very low budget, largely using existing data. In order to find out more information about teenagers who get pregnant, Newcomer is matching birth records of babies born to teenage mothers with certain, selected information from the school directories. Evaluators will then be able to look at whether, for example, schools with school-based clinics have higher rates of teen births than schools without, and whether babies born to girls from these schools have higher birthweights, she said.

Newcomer is also hoping the Baltimore school system will adopt one sexuality education program in selected schools and then evaluate its effectiveness, with an eye to then incorporating this program in all of the 6th grades in the city. This sort of evaluation, however, will require that the students be asked about their sexual behavior, said Newcomer, which worries administrators.

Karen Pittman, Ph.D., director, Adolescent Pregnancy Prevention Policy Division, Children's Defense Fund, said that research and evaluation findings have led to the development of a category of prevention programs which she calls the "life options" approach. Life options programs offer a comprehensive solution that combines traditional methods of prevention — sexuality education and contraception — with improvements in education, job-training and community development, giving teens enhanced life opportunities and increased self-esteem as further incentive to avoid pregnancy.

Pittman stated that pregnancy programs must give adolescents information about how to delay pregnancy. But for a subgroup of those who are the most disadvantaged studies show that the program must also give them compelling reasons *not* to get pregnant. One reason that sexually active youth must have compelling reasons to avoid pregnancy, she said, is that preventing pregnancy requires diligent use of birth control. She also warned that life options programs can not be used as a one-shot inoculation in the 8th grade. They must be ongoing.

These programs, she added, must continually be reinforced by a change in the expectations in the surrounding environment. She said the reality for many "at risk" youth is that graduating from high school is not the norm, and delaying pregnancy is not the norm. The life options approach is asking students to be different so there needs to be an adult support system for those kids who are going to be strong and go against the norm.

Pittman said that we are seeing an array of life options courses combined with sex education programs. Some early evaluations document good results. The only problem is that it is hard to tell which of the many services that youth are provided in a comprehensive program (eg. special tutoring, a job-training program, etc.) are causing the decrease in teen pregnancy. Pittman believes that the comprehensive programs work because of a combination of factors and their cumulative effect over time.

Discussion

- "Has there been any consideration of withholding the 1-5% from individual AFL programs to use for overall evaluations?" asked a participant. McBride answered that the Kennedy bill might permit the evaluation funds to be grouped together for large evaluations. He suggested that programs like PSI, that appear to work with higher risk, urban, black youth, be replicated to see they are equally effective in other areas and with other populations.

- A participant suggested the people conducting the evaluations should reflect the cultural, ethnic, and community backgrounds of the populations they study. Often in teen pregnancy evaluations this is not the case, consequently many of their findings are not useful.

- "Isn't the underlying problem with teen pregnancy the decline in marriage?" asked another member of the audience. Moore agreed that the decline in marriage among young people is a part of the problem. She added that unmarried mothers tend to go on welfare which is why policymakers worry about teen pregnancy. But the literature on teen marriage is mixed, she said. Mothers who marry are more likely to drop out of school. They are more likely to have subsequent births. If they stay married they do better economically. If their marriages disrupt, and many do, then they are single parents with less education and more children.

- Pittman added that the enormous decline in the earnings of minority youth is a major reason for the decline in marriage. She said that today many more young people evaluate marriage separately from parenthood. Young married mothers think about their boyfriend's ability to earn sufficient monies to support a family compared with their own ability to do so.

- Ooms pointed out that there is a national trend toward delaying marriage and added that currently teens only account for one-third of unmarried pregnancies.

- "Are any of the prevention programs being run through religious organizations?" asked a participant. Some religious groups received funds and run pregnancy programs, answered McBride. They do not work any differently from secular prevention programs, he said. A participant from the AFL office added that the religiously run programs must not contain any religious content because they are federally funded. These programs concentrate on teaching universal values.

- One participant from a federal substance abuse office commented that their experience with the evaluation of drug abuse prevention programs is very similar to the pregnancy prevention experience. He argued that more money should be put toward comprehensive multi-site evaluation and less money be spent on individual evaluations.

- Moore added that evaluation is needed both to justify programs and also to isolate what component of a program is working, so that money won't be wasted on ineffective components. She added that we won't get sufficient funding for comprehensive programs which are expensive until we prove we need all of the components in order to have an impact.

Legislative Follow-Up as of 6/21/89:

As a result of the May 26th seminar, an amendment to the Kennedy Bill (S.120) was introduced and accepted in the Labor and Human Resources Committee mark-up session. The amendment permits the pooling of evaluation monies so that grantees can participate in a multi-site evaluation of the effects of different combinations of services, and gives such multi-site studies preference for

funding renewal, if reasonable progress is made in the first year. The amendment also lowered the authorization level from $60 million to $30 million. With this amendment, S. 120 was passed and together with S. 110, which also passed, was reported to the Senate for floor action.

***Additional References**

Card, J. and Reagan, R., "Strategies for Evaluating Adolescent Pregnancy Programs," *Family Planning Perspectives* Vol. 21, Number 1, January/February, 1989.

Dryfoos, Joy, "Putting the Boys in the Picture: A Review of Programs to Promote Sexual Responsibility Among Young Males." *Network Publications* April, 1989, available from ETR Associates, P.O. Box 1830, Santa Cruz, CA 95061.

Howard, M. and Blamey, J.A. "Postponing Sexual Involvement: An Education Program For Young Teens." December, 1988, available from Emory University, School of Medicine, 69 Butler Street, S.E., Atlanta, GA 30303 for $20.00.

Tereszkiewicz, Lillian, "Teen Pregnancy Prevention Efforts Focus Increasingly on Boys." *Youth Law News* January-February, 1989, available from the National Center for Youth Law, 1663 Mission St., 5th Floor, San Francisco, CA 94103.

TEENAGE PREGNANCY PREVENTION PROGRAMS:

WHAT HAVE WE LEARNED?

Background Briefing Report

INTRODUCTION

Public concern about the costs of teenage childbearing has led to a strong interest and growing investment in programs that aim to prevent teenage pregnancy. Originally it was believed that if teenagers were only provided with sufficient sex education and access to contraceptives their pregnancy rates would fall. But experience has proved that there is no such simple solution. With the increasing awareness that teenage pregnancy is a complex social problem with many causes, prevention approaches are gaining in complexity.

Several prevention strategies have been developed and are being assessed. But program evaluations are complex and costly to conduct. Initial results from these studies are slow to emerge, and findings are not clear cut. Some programs do appear to work, that is, reduce pregnancy rates; examples are provided below. But we are still a long way away from knowing which kinds of strategies work, for whom, in which situations. Also, some of these approaches are sufficiently controversial that policymakers are wary of making a major commitment of resources to prevention.

Prevention of teenage pregnancy continues to be treated as a women's issue. While there has been some recognition of the family's role in teen pregnancy and pregnancy prevention, the focus of research and programs on the male role remains minimal.

Selected Trends

(Sources: Child Trends, 1989; Hayes, 1987; Hofferth and Hayes, 1987; Moore, 1988; Pittman and Adams, 1988; Sonenstein, Pleck and Ku, 1989; Trussell, 1989)

The above are all excellent sources for data about adolescent sexual activity, pregnancy and child bearing. Pittman and Adams also provide a very useful discussion of the meaning of different statistical terms, commonly confused terms, and major data sources. The following are a few findings selected to provide background to the discussion about teenage pregnancy prevention (see Figs. 1 & 2 p. 21 & 22).

- 1 in 10 women age 15-19 becomes pregnant each year. About 1 in 5 women will become pregnant before they reach age 18, 1 in 3 before age 20.
- The teenage birth rate fell between the 1950s and 1976. Since then the rate has declined only slightly.
- The proportion of all births which are to *unmarried* teens rose sharply during the 70s and continues to rise, most steeply for white women.

- Levels of teenage premarital sexual activity rose during the 1970s and levelled off but continued to rise for whites in the 1980s. There are wide regional variations in the rates of teenagers who have had intercourse.

- Minority teens do not account for the majority of teen pregnancies and births but they are disproportionately likely to become pregnant, give birth and remain unmarried.

- By their 18th birthday, 7% of white teens, 14% of Hispanic teens and 26% of black teen women have had a child.

- Rates of teenage pregnancy and abortion both increased during the 1970s and stabilized in the 1980s.

- In 1988, 46% of white 17 year old women and 60% of black 17 year old women reported that they were sexually active. A new national survey of young men reported that in 1988, 68% of white 17 year old unmarried men and 90% of black unmarried 17 year old men were sexually active.

- In the male survey, use of condoms more than doubled between 1979-1988 with most of the changes occurring since 1985; and the proportion using no method of contraceptive declined from one-half to one-fifth.

- Declining birth rates have been achieved in other industrialized democracies. Data from the United Nations show that the birth rate for 1,000 females aged 15-19 in 1985 was 23 in Canada, 11 in Sweden, 30 in Great Britain, 4 in Japan, 7 in the Netherlands and 12 in France, compared to 51 per 1000 females 15-19 in the U.S.

- The lower birth rates in other industrialized democracies do not result from greater resort to abortion, as all of the countries above have lower abortion rates among teens than in the U.S.

Determinants of Teen Pregnancy
(Sources: Hayes, 1987; Higgins, 1988; Hofferth and Hayes, 1987; Musick, forthcoming)

There is a voluminous and growing body of literature related to the complex determinants of adolescent sexual activity, pregnancy, pregnancy resolution, child bearing and its consequences. On the basis of two years of review, analysis and debate, the National Research Council's Panel on Adolescent Sexuality, Pregnancy and Childbearing concluded that prevention of adolescent pregnancy should have the highest priority (Hayes, 1987). The research cannot be summarized here, however, several general conclusions that have implications for pregnancy prevention strategies will be mentioned:

- A wide array of individual, family, socioeconomic, cultural, racial, ethnic, religious and broad societal factors have been shown to be associated with early sexual activity, teenage pregnancy and its resolution. The implication of this research is that preventive remedies need to be complex and multi-levelled and different strategies will be more effective with different sub-groups of the population. The field of pregnancy prevention is gradually, if haltingly, moving in this direction and away from simplistic and universal solutions.

- It is also the case that while teenagers in every community and from all income levels are at risk, individuals from severely economically disadvantaged backgrounds are at much higher risk of pregnancy and childbearing.

- Studies are beginning to document that early sexual activity and teenage pregnancy are interrelated with other aspects of adolescent behavior, especially risk-taking behavior such as alcohol and drug use. These findings call for a re-examination of the long standing isolation of pregnancy prevention programs from other preventive efforts.

- Research confirms that teenagers' sex-related behavior is much influenced by the values, attitudes, behavior and actions of important people in their lives. This finding calls for a reexamination of the traditional assumption that teenage women should be the sole target of prevention (and care) programs. Slowly, the field of pregnancy prevention is beginning to include a focus on young men, parents, teachers and community leaders.

- There is a great deal of concern and uncertainty about what kinds of preventive strategies will be effective with a subgroup of the most disadvantaged population: young women (and their partners) whose sexual activity begins very early and results in repeated births. Their patterns of behavior are rooted deep in powerful developmental, familial and cultural, childhood experiences which seem to pose insurmountable barriers to most strategies, however intensive, designed to motivate these young women to change their behavior and break out of their environment (Musick, forthcoming). It may be that much more far reaching interventions are needed, involving their families, neighbors and whole communities in broad social, economic, and cultural change if these young people are to postpone childbearing.

GOALS AND TYPES OF PREGNANCY PREVENTION PROGRAMS

(Sources: Brooks-Gunn and Paikoff, 1989; Mueller & Higgins, 1988; Hofferth and Hayes, 1987; Hofferth & Miller, 1989; Pittman, Adams-Taylor and O'Brien, 1989)

Prevention of teenage pregnancy has several meanings that need to be carefully distinguished. In general, "prevention refers to efforts to reduce the incidence of a problem behavior, undesirable event or disorder" (Mueller & Higgins, 1988: 3). In the field of adolescent pregnancy, prevention usually refers to all teenage pregnancies (i.e. through age 19) or, sometimes, to all school-age pregnancies (i.e. through age 17). Prevention may sometimes refer only to teenage births; but sometimes is restricted to out-of-wedlock pregnancies or births, or only to "unwanted, unplanned" pregnancies or births. Further, it is sometimes used to refer to the prevention of young unwed mothers' repeat or subsequent pregnancies.

Often, which of these events is the target of prevention efforts simply reflects data availability. For example, birth data are easily available but pregnancy data are usually not directly collected and need to be inferred (through adding abortion and birth data and estimates of still-births and miscarriages). Also, since it may be difficult to assess whether pregnancies or births are unwanted or unplanned, an assumption is made that all unwed teenage pregnancies or births should be the target of prevention efforts. In this report we will primarily focus on programs that aim to prevent initial pregnancies to young women under age twenty, which is the most common usage of the term.

In the past decade there has been a proliferation of programs aimed at teenage pregnancy prevention. They can be sorted into different categories with respect to their primary emphasis, the types of activities they conduct, and the settings in which they are located. There are three kinds of emphases within these programs: sexuality education, family planning and life options. Some programs focus on more than one of these emphases. Program activities may include services that provide information and knowledge, improve specific skills, provide resources and affect motivation.

- **Sexuality Education** programs aim to delay the onset of sexual activity and reduce its frequency: such as sex and family life education programs, seminars to improve parent-teen communication about sex, and programs that teach values (for example, abstinence), choices and decision-making skills.

- **Family Planning** programs aim to prevent pregnancy by improving access to, and effective utilization of, contraceptives among sexually active teenagers: such as family planning clinics, school-based or school-linked health clinics etc.

- **Expanding Life Options** programs aim to affect young people's motivation to avoid pregnancy through improving their "life options": for example, offering focused discussion groups; career counseling, summer jobs, remedial education and job training.

Prevention programs can be based in a school, community agency or be carried out through using the media. Additional dimensions for categorizing prevention efforts include whether they are aimed primarily at teenage girls, boys or both sexes; what ages they are aimed at; whether the emphasis on pregnancy prevention is the sole, major or simply one of the program goals; whether pregnancy prevention is an explicit and direct or an implicit, indirect goal; and the extent to which they target and involve the teenager's parents. Some programs may deliberately, or inadvertently, target the behavior of a future generation of teenagers. For example, several educational early intervention programs for preschoolers have been found, fifteen years later, to have an impact on reducing unwed birth rates when the preschoolers reach adolescence (Berrueta-Clement, et al., 1984).

Finally, many recent prevention efforts are based on the recognition that the current rates of teenage pregnancy have no single determining cause but are a product of a combination of individual, family, community and societal factors. Thus, while some programs continue to target only one or two of these factors, a growing number are more ecologically oriented and aim to involve all four of these levels of intervention.

EVALUATION OF TEEN PREGNANCY PROGRAMS

After several years of pregnancy prevention programs, and in response to growing fiscal austerity, both private and public program funders are urgently wanting to know what works and which kinds of efforts are the most cost effective. Hence, there has been a major effort made in the past few years to assure that evaluation is a component of these programs, and to develop better methods of evaluation.

There are several different types of program evaluation. First, there are **process evaluations** in which the focus is on finding out how successfully the program is implemented: Did it enroll the population it planned to enroll? Conduct the activities it was supposed to conduct? Did it cover its costs? What was the quality of services provided? How satisfied were the staff, or the clients? Process evaluations are an essential tool of good management. The data they generate provide feedback that helps to modify and improve the program as it develops.

The second type of evaluation are **client outcome evaluations** in which the focus is on finding out what happened to the clients who were served by the program. What did they learn? Did their attitudes change? What kind of contraceptives did they use? Did they return for follow up appointments? Did they get pregnant within the year? It may also be possible, if the data is individually coded and linked, to examine through computer analyses the relationship between background factors, or specific services used, to specific client outcomes. For example, whether

those teenage clients whose male partners attended the educational sessions with them were less likely to get pregnant than those who came alone.

This kind of evaluation is relatively simple to conduct, but in the absence of a comparable control group of teenagers who were not exposed to the program it tells very little about the effectiveness of the program intervention itself. However, researchers now agree that when designation of a control group is not feasible a useful alternative approach is to compare the program's client data with comparison statistics from some other data source, another comparable program or national data set etc. A sourcebook of these comparison data has recently been prepared for such use (See Card, Reagan and Ritter, 1988).

Third, there are **impact evaluations**, in which the focus is on the extent to which the program achieved its long-term outcome objectives for the population at risk (for example, reduction in pregnancy rates in the school or community). The best way to do this is to use an experimental design using comparable control groups and, whenever possible, random assignment of subjects to the "treatment" and " non-treatment" groups. These impact evaluations need to be rigorously designed and implemented and are expensive to conduct. In addition, when the program has several different dimensions, ideally, a strong evaluation can also isolate the effects of different program components on specific outcomes. In other words it can determine which aspects of the program are essential to its success (or responsible for its failure), and which are peripheral and don't seem to matter. However, few pregnancy prevention programs have utilized the sophisticated evaluation methodologies necessary for this purpose.

Finally, there are **cross-program impact evaluations** when a number of similar programs (multi-site replications of one type of model program) collect comparable client and program data in order that their effectiveness can be compared. These evaluations need to be designed with the same rigor as basic impact evaluations. The purposes of such multi-site evaluations using common data collection systems are as follows.

---It allows researchers, through pooling data, to draw conclusions from much larger samples.

---It allows a fairer test of the effectiveness of a model (one program may be managed poorly).

---It can identify which core program elements are critical to program success and which kinds of modifications and variations are necessary to meet the individual needs of specific populations and communities.

In the field of pregnancy prevention most evaluations, appropriately, have been of the process and client outcomes type, specific to a single program site. Many programs have not been evaluated at all. However, in recent years there has been a new effort to design and implement impact evaluations, including a few multi-site evaluations. Impact evaluations are best used for a select group of programs serving large numbers of clients and with stable, strong management and funding.

Although a great deal has been learned about how to design, and administer effective pregnancy prevention programs, the results of outcome and impact evaluations to date have, in general, been disappointing. We still do not have a clear idea of what kinds of activities prevent pregnancy. This fact is as much a reflection on weaknesses in the evaluations than on the quality of the programs. However strong and successful a program is, if the evaluation is poorly done its success will not be reflected in the findings. The encouraging news is that as evaluation efforts strengthen, there are a number of new programs which are showing some promising results in terms of prevention.

There are numerous common flaws and weaknesses in many of the evaluations carried out to date. For example:

---the goals of the programs are often not clear and thus cannot be measured;

---the outcome measures selected do not measure the program goals (for example, they measure only attitude change or knowledge increase and not behavior change);

---the evaluation did not collect data from a matched control group; there were no pre-and post measures to determine changes in behavior; data is incomplete and data quality is poor;

---samples are too small to permit tests of statistical significance or generalizability of the findings and so forth.

A number of reasons have been mentioned for the weaknesses of many of these evaluations including:

- Insufficient or no funding of the evaluation effort. Full-blown impact evaluations are expensive. The funds needed depend on a great number of factors. But the 1-5% of total grant funds spent on evaluation activities in the demonstration programs funded by the Adolescent Family Life Office, HHS, are certainly not adequate for rigorous evaluation.

- Difficulties in obtaining effective cooperation from busy program staff in collecting data from their clients. The staff are often stretched extremely thin just trying to keep up with the demands for their services and evaluation simply doesn't have a high priority for them. Moreover, there is considerable turnover in program staff which hampers the supervision and quality control of data collection.

- Inadequate expertise in the evaluation design. Evaluation research is not glamorous and is not awarded much prestige in academic circles. Many independent researchers, often from an academic base, who have been used as program evaluators have had little or no prior experience or training in evaluation of complex service programs. However, this is changing as both private foundations and government funders have made major efforts to provide written materials, computer assistance, and other kinds of centralized consultation and technical assistance activities to evaluators and program administrators focused on teenage pregnancy program evaluation (Card, 1989; Card, Reagan and Ritter, 1988).

- One of the most difficult issues to resolve is the problem of unintended consequences. When specific programs are designed the emphasis is on intended positive outcomes. However, as Hofferth and others have pointed out, there may be other unintended impacts that are less desired. "By reducing the negative consequences of certain behaviors policymakers may be reducing the disincentives to engage in such behaviors" (Hofferth, 1979: 207). For example, some worry that making family planning services available may encourage some teenagers to engage in sex who otherwise would not have done so. Others worry that by providing income, jobs and other supportive services to teenage mothers, they may increase the probability of a repeat pregnancy. These feedback effects are difficult to measure and consequently this issue has caused some controversies.

WHAT HAS BEEN LEARNED?

A great deal of effort has been spent on activities designed to prevent adolescent pregnancy. As mentioned, many of these efforts were not evaluated at all or were poorly evaluated. Nevertheless,

a number of important lessons have been learned about program goals, design and implementation and a few programs, with rigorous evaluations, are reporting considerable degrees of success in achieving their goals. We review these findings with respect to the three major program emphases on sex education, contraception and provision of life options. We also discuss one cross-cutting strategy: the sporadic attempts to involve parents in these efforts.

Sex Education Programs
(Sources: Brooks-Gunn, and Paikoff, 1989; Forrest and Silverman, 1989; Hofferth, and Hayes 1987; Kenney, Guardado & Brown, 1989; Kirby 1984; Stout and Rivara, 1989; Vincent, Clearie and Schulcter, 1987)

Various types of program activities fall under this term of sex education, sometimes referred to more broadly as sexuality or family life education. There are traditional, school-sponsored, classroom-based curricula designed to impart basic biological knowledge about reproduction. More recently, some of these programs now include material addressing values and attitudes about sexual behavior. And others also include components that actively teach responsible decision-making and "life skills" through peer discussion, role playing and problem solving. A number of recreational and religiously sponsored youth agencies are offering similar sexuality education activities in the community, often making extensive use of the media. Usually these programs are aimed equally at boys and girls, however some focus only on girls, for example, the Girls Club of America's Preventing Adolescent Pregnancy Program. Others focus on boys, for example, the National Urban League's Male Responsibility Project, and the ETR direct mailing to teenage boys about condoms (Kirby et al., 1989).

There has been a considerable growth in the number of public and private schools offering some kind of sex education instruction and many changes in curricula. However, these programs vary a great deal in terms of the students who take the courses and the length of the instruction which can range from a couple of hours in a health sciences course, to comprehensive material, sometimes integrated into other curricula, over a period of year or more. The content also varies greatly. In particular, many courses do not include information on birth control, homosexuality or other controversial topics. In 1982, a survey estimated that only about 14% of high schools offered comprehensive courses, and in these schools only about 10% of students enrolled in these comprehensive courses (Sonenstein and Pittman, 1982).

National studies conducted by the Alan Guttmacher Institute in 1988, reported that four-fifths of the states either require, or encourage, the teaching of sex education in public schools, and nearly nine out of ten large school districts provide such instruction (Kenney, Guardado and Brown, 1989). However, it is clear that fear of the AIDS epidemic has largely spurred the recent interest in sex education. Curricula are more specific about AIDS and venereal disease prevention than about pregnancy prevention (Forrest and Silverman, 1989).

Little is known about the effects of sex education due to the lack of information about the content, quantity and quality of sex education provided in public schools nationwide. However, several attempts have been made to evaluate a number of model programs provided under private auspices. The Adolescent Family Life Office/ HHS has funded the development of over forty-five family life education programs explicitly designed to prevent adolescent pregnancy. These place special emphasis on abstinence and improving parent-teen communication.

Reviews of some model sexuality education programs have concluded that while they certainly often succeed in increasing students knowledge, they had little effect, either positive or negative, on attitudes, values, sexual activity or pregnancies. Sex education is associated with better contraceptive use among the sexually active. However, few of these programs clearly set out to

change behavior (Kirby, 1984; Stout and Rivara, 1989). Only one study, an analysis of responses from a national survey of youth, reported an association for some groups between receiving sex education and an increase in sexual activity (Mott and Marsiglio, 1986). However, this relationship may be spurious, a result of particular characteristics of the school or neighborhood in which the sex education was offered.

Several of the programs that show promising results include imparting reproductive knowledge **and** teaching life-skills and decision making. Among these are the following programs, all funded in part by grants from the Adolescent Family Life Office, OPA/HHS.

- **Project Sex Respect** is a national demonstration project sponsored by the Committee on the Status of Women, Glenview, Illinois. The program is pilot-testing the **Sex Respect** curriculum with 7-9th grade students in 26 public schools in five midwestern states. The curriculum, taught by regular classroom teachers who have been specially trained, consists of a ten-unit course that strongly emphasizes premarital sexual abstinence as the best way to prevent teenage pregnancy. The curriculum includes homework exercises designed to encourage family-teen communication. A supplement to the curriculum provides information about AIDS. The initial evaluation found some important, desired attitudinal and value changes across population groups. The more recent evaluation includes control groups for comparison, and will examine the linkage between attitude/value change and changes in behaviors.

- **Search Institute,** Life and Family National Demonstration Project is conducting the evaluation of a field test in public schools of a curriculum developed in collaboration with the St. Paul Maternal and Infant Care project, called **Human Sexuality: Values and Choices.** This curriculum provides 15 units for students and three parallel sessions for parents, and is designed for junior high students. The program emphasizes a range of values such as equality, promise-keeping, respect, self-control and responsibility in addition to promoting sexual abstinence. It has been introduced in an estimated 400 communities in 40 states. Results from the initial evaluation, which included a control group, found immediate changes in attitudes and intentions which were not however sustained in a four month follow up. This finding has led to the development of a booster, curriculum to reinforce the original gains made. This evaluation has not yet assessed changes in behavior.

- **Postponing Sexual Involvement Program**, Grady Hospital, Atlanta. This program has three components aimed at all 8th graders in the public schools in Atlanta. First, a traditional human sexuality course; second, sessions on skill building led by peer counselors which have a strong emphasis on abstinence; third, for those who desire it, access to family planning and reproductive health services. Trained volunteers, committed to reaching 50 youth within a two-year period, have been implementing the program in one-third of the school districts in Georgia. Initial analyses of data from 600 youth show some promising results: more are postponing intercourse, there are lower frequencies of intercourse and there are fewer pregnancies among the sexually active. The evaluation is being conducted by Emory University.

- **School Community Program for Sexual Risk Reduction Among Teens** is a program initiated by the School of Public Health, University of South Carolina in 1982 in an area of South Carolina with a rural, low-income population. The program focused on delaying sexual intercourse, and encouraging consistent, effective use of contraception. While the school nurse has always been available to refer for family planning services, for a period of five months, in the fall of 1987, these services were available in a school-based clinic.

- The unique aspect of the program is that teen pregnancy prevention is treated as a community problem as well as an adolescent problem. Thus the activities are conducted at several levels: education was initially aimed at the adults in the community---school district teachers and administrators were given special courses, church leaders and parents were recruited to attend mini-courses. In addition, the local newspaper and radio station were involved in promoting a series of health messages (re: smoking, drug abuse, nutrition and teen pregnancy) that emphasized responsible decision making. These activities supplemented a school-based sexuality education program whose curriculum was developed by school personnel.

The findings from this program are very encouraging: compared with the data from three control counties, the average estimated pregnancy rates declined considerably for several years in the target county; over a three year period they declined by more than half compared with the control counties (Vincent et al., 1987). There is some question about whether this model would be as effective if adapted to an urban rather than a rural setting. And it is also unclear which component of the overall program was critical to its success. Replication of this program is currently being planned for West Virginia and an urban community in South Carolina.

Two projects that have only begun recently have especially strong and innovative experimental evaluation designs and thus have the potential to provide more definitive results (Miller, 1989). These are:

---**The Pregnancy Prevention Skills Curriculum Project**, based on the 15 session life-skills curriculum developed by Schinke, Blythe and Gilchrist, (1981) is currently being implemented and evaluated in 13 California senior high schools by ETR Associates. This curriculum is designed explicitly to increase teens' ability to delay early sexual activity, increase their contraceptive usage and decrease pregnancy rates.

---**The McMaster Teen Program**, implemented city wide in Hamilton, Ontario. The program consists of small group discussions emphasizing problem solving and decision making for adolescent sexuality beginning with 12 year olds.

Family Planning Programs

(Sources: Dryfoos, 1988; Hofferth and Hayes, 1987; Hofferth and Miller, 1989; Kirby, forthcoming, Lovick & Stein, 1989)

Several of the sexuality education programs mentioned above provide some information about family planning and provide referrals for contraceptive services. However, hundreds of family planning clinics' primary purpose is to prevent unintended, or mistimed pregnancies through improved contraceptive use. And there is a newly established group of programs which have placed an emphasis on improving teenagers' accessibility to family planning services through locating health clinics in schools themselves, or in nearby facilities.

Family Planning Clinics. Family planning clinics provide information and birth control services to women. There are over 2,000 clinics providing these services, the majority under the auspices of county health departments (56%), 13% were in hospitals, 7% were planned parenthood agencies and the others were sponsored by a variety of organizations. Family planning clinics receive substantial federal grants through the states, and many of their patients are paid for by Medicaid reimbursement. They primarily serve low-income women, but payment is on a sliding fee scale.

In 1981, an estimated 4.6 million women obtained family planning services from these organized providers of whom 1.5 million were teenagers. Another 1.4 million teenagers used private physicians for contraceptives. The numbers of teenagers using family planning services increased six-fold between 1969-1983. The major reason teens give for preferring clinics to private doctors is their lower cost. Their second reason is privacy, fearing private physicians might tell their parents.

These clinics are almost entirely "women oriented," fewer than one-half of one percent of all family planning clinic patients are male. A decade ago, eleven demonstration programs were funded to provide services specifically to males but they were not continued. Some clinics do reach out to young males in schools and the community with educational programs including some that specifically focus on condom use. However, these are few in number and they have not been evaluated.

What have been the results of these family planning programs? The success of family planning programs in reducing unwanted births has been well documented. And attendance at a family planning clinics is clearly associated with improved contraceptive use, though rates of discontinuance are high for teenagers and cause continuing concern. However, it is less clear to what extent these reductions in births are brought about by either avoiding pregnancies or through increasing abortion.

This is a controversial subject and difficult to resolve. During the 1970s teen childbearing declined, although pregnancy and abortion rates rose. However, the major reason for the increase in pregnancies was due to the substantial increase in the proportion of teens who became sexually active during this period. Among those who were sexually active, pregnancy rates declined.

Critics of family planning programs have suggested that these data raise a question about whether the existence of family planning services encourages teenagers to engage in sex who otherwise would not have. One study, which has received a lot of attention, through an areal analysis found a positive association between utilization of clinic services and teen pregnancy rates (Olsen and Weed, 1986 and 1987). Association does not prove causation however, and the higher rate of pregnancy and greater use of family planning clinics could be independent results of greater sexual activity arising from a host of other social influences. Unfortunately only one study has examined the effect of family planning availability on pregnancy rates controlling for levels of sexual activity. This study found that, in 1971, sexually active black teens, age 16-18, living in communities with more subsidized family planning services were significantly less likely to become pregnant than those who lived in less well-served areas (Moore and Caldwell, 1977). Clearly this is an issue that needs further research (Hofferth and Hayes, 1987; Hofferth and Miller, 1989; Olsen and Weed, 1986 and 1987).

School-Based Clinics. Providing family planning related services in schools seemed to offer a solution to problems of accessibility, confidentiality and method discontinuance that characterize teenagers' relationship to family planning services. In the early 1980s encouraging results from two school-based health clinic programs in St. Paul, Minnesota, which dramatically reduced birthrates led to a great deal of national interest in school-based clinics as an effective teen pregnancy prevention strategy. (There were no data in the St. Paul's program on pregnancy rates.)

The interest was fueled by additional results reported in 1986 from the Johns Hopkins University Adolescent Pregnancy school-linked prevention program which provided sexuality education in one junior and one senior high school to a black, low-income, urban population. Family planning services were provided in a clinic located near the schools. This was one of the first such programs to incorporate a pre-planned, quasi-experimental design in its evaluation. Findings from this study were very encouraging. Students delayed the initiation of intercourse by an average of

seven months; students attended clinics sooner after initiating sex than they did prior to the program; and there was some improvement in contraceptive practice. There was also some reduction in pregnancy rates among sexually active teenagers in higher grades. It is difficult to know how much weight to put on these findings since there are a number of methodological problems with conducting longitudinal research on a rapidly changing school population. (This program is no longer in operation.) Some believe these positive results came about because the program focused solely on sexuality education and family planning.

There has been a steady growth of the school-based clinic movement across the country. As of 1988, a total of 120 clinics, administered by 68 programs were operating in 61 cities in 30 states (Lovick and Stern, 1989). These clinics are operated by public health departments, school systems and non-profit organizations and are funded by a combination of public and private sources. The clinics are most often situated in low-income areas and 55% of their users have no other primary source of medical care. (In some programs this is true of nearly 100% of their enrollees.) Thirty-four percent had no public or private medical insurance coverage of any kind.

Although the clinics have become best known for their sexuality related services these constitute the minority of the health services provided. General primary medical care and referral services, physical examinations, treatment of minor injuries, immunizations, chronic illness management and dispensing medication are included among a great variety of medical and counseling services. Whereas the large majority of these clinics offered pregnancy testing and referral, diagnosis and treatment of STD's, and other sex related services, only 46% actually prescribed birth control methods, and only 15% dispensed birth control. A recent evaluation of clinic usage reports that from 48-83% of students in these schools used the clinic for a variety of health problems but less than 25% of the visits were for family planning purposes (Kirby, forthcoming).

What do we know about the success of school-based clinics? The comprehensive evaluation of the school-based clinics, collecting data in six representative sites, reports on the following major findings (Kirby, forthcoming). School-based clinics:

---Were very successful at delivering a variety of needed health related services to underserved youth.

---Did *not* increase sexual activity.

---Did *not* dramatically increase the use of birth control, reduce pregnancy rates or birth rates for the school population as a whole, but probably prevented a small number of pregnancies among sexually active students who used the clinic for birth control.

These findings are confirmation that school-based clinics, like other programs, do not provide a "silver bullet" in terms of pregnancy prevention. Their major value may lie in their increasing youth's access to other kinds of services, and in being an important component in a larger, more comprehensive program. The failure to find strong effects on pregnancy rates and contraceptive behavior of students overall can partly be explained by the fact that the study examined the impact of clinics upon the entire school population, which included sexually active students who did *not* use the clinic for birth control. Thus, the measured impact of the clinic upon students who used the clinic was diluted by the students who did not use the clinic. Further, expectations that there would be strong positive effects were clearly unrealistic given that family planning services were not the major focus of clinic activity and hence there was not a great deal of emphasis on outreach or follow up.

Life Options Programs
(Sources: Hofferth & Miller, 1989; Pittman, Adams-Taylor and O'Brien, 1989; Pollit, Quint and Riccio, 1988)

Teens who have future plans and expectations are motivated to avoid pregnancy, according to a number of studies (see Hayes, 1987 and Hofferth and Hayes, 1987). In addition, studies have shown that problem behaviors such as school drop-out, unemployment, substance abuse, and teenage pregnancy are linked, and part of a cluster of behaviors too often engaged in by high-risk youth. Hence, it is hypothesized that efforts designed to address many of these behaviors and help broaden youth's sense of future options through information, school remediation, teaching life management skills, job training and actual employment opportunities will help provide the motivation needed to delay sexual activity, or be more effective contraceptors.

A new report, prepared by the Children's Defense Fund, lists and briefly describes twenty-six multi-site initiatives serving high-risk youth (Pittman, Taylor and O'Brien, 1989). Of these, nineteen are primarily funded by private foundations, sometimes supplemented with local and state public monies, only seven have been supported by federal funds. A few of these programs were established in the late seventies (Too Early Childbearing Network, 1978-1986; Cities in Schools, 1977-Present); others have operated for a few years, and many are quite new and just getting off the ground. Of these, ten are mentioned in the report as including teen pregnancy prevention (first or subsequent births) as an explicit program objective. However, most of these programs can be expected to affect teenage childbearing indirectly. The programs vary a great deal in type of sponsor, scope, complexity and numbers of replication program sites and communities ranging from only two sites to as many as 80 classrooms in 26 cities in the Teen Outreach Program, (TOP).

What has been learned to date from these life options programs? First, only a couple of these multi-site model programs have incorporated rigorous evaluations for a sufficient number of years to have produced significant results. From these few, the initial findings are promising and indicate that, along with other positive effects, pregnancies are being prevented. Two examples will be briefly mentioned, including a third promising program that has just been established:

- **Teen Outreach Program, (TOP)** is sponsored by local school systems and the Association of Junior Leagues. The program was initiated in eight sites in 1984 and is currently operating in 70 sites in middle and high schools throughout the United States and Canada. Its major and initial funding was provided by the C.S. Mott Foundation. TOP targets in-school youth ages 11 through 20 (average age 15 years), 70% are female. It has two major components, small group, in-class discussions using a unique curriculum and requiring volunteer service experience in the community after school.

  The most recent TOP evaluation report, conducted by Philliber Associates, reports on data collected from 44 sites in 14 cities, which together enrolled 823 students. Although there are some problems with the selection bias of program participants and the control group, the school drop-out rates and pregnancy rates have been significantly lower for the Teen Outreach students in each of the four years of national replication: 35.8% lower rate of school drop-out and 42.4% lower rate of pregnancy (Philliber, 1989).

- **Summer Training and Employment Program (STEP)** was begun in 1985 as a special program for 14-15 year old disadvantaged youth, initiated by the Public/Private Ventures (P/PV) a non-profit, Philadelphia-based research and demonstration corporation. STEP is designed to prevent summer declines in school achievement and keep youth from

dropping out of school by providing a program of work, tutoring, life-skills training for two summers and provides additional remedial support throughout the year. An explicit goal is also to reduce pregnancy rates. It received initial and continued funding from the Ford Foundation and the U.S. Labor Dept, and additional corporation support for expansion of the replication from its initial 11 sites to 50 new sites in 1989. The program builds on an existing federal program, the Summer Youth Employment and Training program, which apparently accounts for its seeming easy institutionalization and replication.

Short-term results from the impact evaluation conducted by P/PV to date are promising. The program participants make significant gains in reading and math, show increased knowledge and, for the sexually active, more responsible use of birth control. Data related to pregnancy are not yet available. Follow up data will be collected for five years (Sipe et al., 1988).

- **New Futures** is a very promising and ambitious new five year program, funded by the Annie E. Casey Foundation, which began to be implemented in five cities in 1989. This multi-site program aims both to improve collaboration among youth serving agencies and to generate permanent institutional change. It targets at-risk middle school youngsters and seeks to improve their academic level, school attendance and graduation rates, increase post high school employment and reduce pregnancy and childbearing. The planning process, proposal review, city site selection and the project evaluation are being conducted by the Center for the Study of Social Policy, Washington, D.C. This project's unique features are the financial "carrot"---foundation dollars need to be matched, one to one, with city dollars, requirements for cross agency collaboration and performance standards. (See Center for the Study of Social Policy, 1987 & 1989.)

Several programs, also mentioned in the CDF report, have focused on improving life options and reducing *second* pregnancy rates for high-risk teenage mothers. For example, **Project Redirection**, and **New Chance,** incorporated strong evaluations (although not an experimental design) conducted by the Manpower Demonstration Research Corporation (MDRC). However, although short-term results from these demonstrations were promising with respect to fertility, education and other outcomes, after five years these gains were not sustained except for employment and parenting outcomes. These findings, and some preliminary results from the new multi-site demonstration program, **Job Start,** also conducted by MDRC suggest that it may be very difficult to motivate young parents to avoid a second pregnancy.

A great deal is being learned from program experience and process evaluations about how to establish and implement successful life options and other programs aimed at pregnancy prevention. In particular, we know much more about how to design model programs with clearly delineated components and measurable goals; and how to move from model demonstrations to replications and eventually institutionalization. The CDF report outlines a number of essential successful strategies including: intensive, early community planning and coalition building, building on existing programs, identifying sources of technical assistance and funding, identifying natural replication systems and so forth (Pittman, Taylor and O'Brien, 1989). However, we do not yet know which of the program components are essential to a successful model.

Family Involvement as a Pregnancy Prevention Strategy

(Hayes and Hofferth, 1987; Lerman and Ooms, 1988; Ooms, 1981; Smollar et al. 1986)

Research demonstrates the strong influence of family factors on teenage sexual behavior and pregnancy. Studies have examined the direct and indirect role of family characteristics (social class, structure), parental attitudes and values, behavior and quality of parent-teen relationships.

Siblings can also have an impact, and younger siblings may be at risk. Interest has focused especially on the direct and indirect ways in which parents impart sex related information, values and attitudes and assert controls over their children's social behavior. The findings provide a strong rationale for involving parents and other family members, in a variety of efforts to prevent teen pregnancy.

Sexual behavior is perhaps the most sensitive and difficult area of parent-teen relations. Sexual maturation sets up immediate boundaries between parents and children as sex is very private and intimate. When a teenager becomes sexually active, it symbolizes their separation from parents and developing autonomy. Yet many hold that parents still have the duty, while respecting the need for privacy, to help their children understand the responsibilities and consequences of engaging in sex and should establish clear guidelines and expectations for them to follow.

How has this knowledge about the importance of the family's role been translated into prevention strategies? First, an important distinction needs to be made: efforts to involve parents as a group in sexuality education programs have evoked widespread support. But efforts to involve particular parents of teenage clients in the delivery of reproductive services has aroused controversy and confusion. Program experience with parent involvement can be summarized as follows.

- It is generally agreed to be essential to involve parents in the community as advisors and consultants in the planning of new school-based sexuality education or community awareness programs. This ensures that the program will have widespread support and that the curriculum reflects parental and community values.

- Many sexuality education curricula, including those discussed above, include a component aimed directly at parents, sometimes focusing specifically on exercises designed to improve parent-teen communication. These approaches have met with some success in terms of improving communication and changing attitudes. Evaluation designs are not able to identify whether the parent involvement component has an independent effect on pregnancy prevention.

- There has been great controversy over state laws, and a proposed, but rescinded federal rule, requiring parental notification when minor teenage women are prescribed birth control. Such policies sharply challenge the general principles of confidential health care and are strongly resisted by advocates and professionals on the grounds that surveys of teen clinic clients show that notification would constitute a barrier to needed services. (These surveys show that about half of teenage clients report that parents are aware of their clinic visits.) The rationale for notification rests on supporting parents rights to carry out their responsibility to protect their minor teens' health and development and the hope that notification will promote desired parent-teen communication about sex. This issue arouses strong feelings, but there is very little good research on this question.

- Many professionals specifically trained to work with adolescents agree that in the situation of young sexually active teenagers, who are often at risk of other problem behaviors, clinic personnel should make strong efforts to involve family members, or other adults close to the teenager, in a broad assessment of her family, school and social environment which may contribute to her destructive patterns of behavior. However, the current organization, financing and delivery of family planning services is not oriented to this approach. For the most part, clinic personnel have neither the time, training nor incentive to assume such a broad counselling role with the teen client and her family (Smollar et al., 1981).

- Some studies would suggest that programs that implement a "life options" strategy should consider involving parents and other family members in order to gain their understanding

and support of the program and provide reinforcement to their teenager. In addition, it may be important to understand family circumstances and relationships that account for some teens poor attendance or program drop out (Lerman and Ooms, 1988).

THE FEDERAL ROLE IN PREVENTION OF TEEN PREGNANCY

The federal government has played an important leadership role in helping focus the nation on the issue of teen pregnancy prevention through some visible, and at times controversial, programs. However, its **investment** in prevention programs has been minimal compared with the estimated $16.65 billion of public outlays attributable to teenage childbearing in 1985 (Burt and Levy, 1987).

Under the Adolescent Family Life program, the federal government has supported a small number of demonstration programs designed to prevent pregnancy largely through promoting abstinence and parent-teen communication and has funded a number of research and evaluation activities related to prevention. In addition, about one-third of the clients who received federally subsidized family planning services are adolescents. There has been some federal funding of the "life options" approach to prevention through the Department of Labor. And research funded by the National Institute of Child Health and Development/HHS has added substantially to our understanding of the causes of adolescent pregnancy.

Adolescent Family Life Program (AFL) and Pending Legislation to Amend Title XX

The Adolescent Family Life program is the only federal program specifically designed to address the problems of adolescent sexual activity and pregnancy. The Adolescent Family Life Act of 1981, Title XX of the Public Health Service Act, is a demonstration program aimed at contending with many aspects of teenage pregnancy and parenthood. The program is administered by the Office of Population Affairs, HHS. Through five-year grants to community-based service agencies and researchers the program attempts to: provide services intended to discourage premarital sexual relations among adolescents; provide comprehensive services for already pregnant adolescents and young parents; and fund research into the causes and consequences of adolescent sexual relations, contraceptive use, pregnancy and child rearing. There are currently 68 service projects and 15 research projects funded under Title XX.

The Adolescent Family Life program is an amended version of a program established in 1978 during the Carter Administration. Under the amended version prevention services are defined as "necessary services to prevent adolescent sexual relations." Not more than one-third of the demonstration grant monies may be spent on prevention services. For many years the program has received bi-partisan support with its primary sponsors being Senators Hatch (R-Utah) and Kennedy (D-Mass.). However, Congressional support for the program has not ensured a high level of funding. The yearly appropriation for the program has never exceeded $14 million dollars and decreased to $9.5 million in 1988 and 1989.

The program does permit agencies to provide family planning services when there are no such services in the community. However, its primary prevention emphasis is on teaching "chastity." Giving grants to religious organizations to promote chastity caused the program to be attacked as a violation of the separation of church and state. In 1988, the American Jewish Committee and the American Civil Liberties Union challenged the constitutionality of the Act. The Supreme Court, on June 15, upheld the constitutionality of the Act but said that it had the potential to be unconstitutional if the funds were being used incorrectly. (The Supreme Court sent the case back to the D.C. District Court which is allowing the ACLU to investigate agencies that are administering the programs.)

The program will continue in a slightly different form if Congress approves a new bill introduced in January, 1989. The bill, S. 120, Adolescent Pregnancy Prevention, Care and Research Grants introduced by Senator Kennedy, amends and reauthorizes the AFL Title XX legislation. There are ten additional co-sponsors, including Republicans Chafee, Packwood, and Stevens. It would incorporate the court's ruling by allowing federal money to go to religious organizations provided they give services similar to those provided by secular organizations, comply with medical and counseling ethics by supplying full information regarding all legal options available to pregnant women (including abortion), and do not "teach" religion. The bill would also authorize $60 million in new funds for the program. It was introduced into the Labor and Human Resources Committee and has received one hearing. The mark-up is scheduled for June 7th.

The bill removes the five-year limit on programs' receipt of funds existing in the current law. The bill also differs from the AFL Act by removing the parental consent requirement. The bills' sponsors assert that eliminating parental consent will encourage more adolescents to participate in the program. Parental involvement is still encouraged in the Kennedy bill.

The Kennedy bill would not change the proportion of funds spent on prevention but it would increase the percentage of funds used to evaluate the effectiveness of the programs. Under the Kennedy bill 3-10% of the funds would be allocated for evaluation. Under the AFL legislation only 1-3% of the funds can be used for evaluation. Senator Hatch, who is a major proponent of the AFL program, opposes the Kennedy bill.

The House companion, bi-partisan, bill is H.R. 1117, Adolescent Pregnancy and Parenthood Act of 1989, sponsored by Representatives Leland, Johnson and Waxman. This bill, like Kennedy's bill, deletes controversial provisions such as the church-state conflict and parental consent requirement. However, the Leland bill concentrates on already pregnant teens, young parents and their families and does not fund prevention or evaluation.

Family Planning Services and Pending Legislation to Amend Title X

There are four main sources of federal funding of family planning services, but the two most important are Title X of the Public Health Service Act, passed in 1970, and Title XIX, Medicaid. Title X funds provide services, research and training grants through the HHS regional offices to individual family planning organizational providers. This program is also administered through the Office of Population Affairs, HHS. Title X funding has decreased by 20% between 1981 and the present, whereas Medicaid expenditures on family planning nearly doubled over the same period. Additional family planning funding support is provided through the Maternal and Child Health Block Grant and the Social Services Block Grant.

The Title X program was designed to serve all ages of women but has had an explicit focus on services to teenagers for many years. These services are provided to minors without parent notification or consent except where the state requires parent involvement. FY 1989 total appropriations is approximately $138.3 million dollars.

Reauthorization of the Title X program is being sought through new legislation, the Family Planning Amendments of 1989, introduced by Senator Kennedy, and co-sponsored by 31 other Republican and Democratic Senators. This bill, S. 210, continues to fund the services and personnel training grants as before. New features of this pending legislation include additional monies for research into effective models of teenage family planning.

Data Archive on Adolescent Pregnancy and Pregnancy Prevention (DAAPPP)

This Archive was established in 1982 with funding from the Office of Population Affairs, and is a collection of computerized social science data sets on topics related to teenage pregnancy and family planning. Through DAAPP, researchers, practitioners, administrators and policymakers have easy access to a large scale data-base on sexuality, health and adolescents. Data sets were selected for the Archive by a national panel of experts. Over 100 machine-readable data sets are now available at minimal cost, singly or on a compact disc that constitutes an efficient retrieval system to aid searches of the entire collection. Josefina J. Card, President of **Sociometrics Corporation** is the present contractor for DAAPPP. Sociometrics also publishes a number of reports related to the evaluation of pregnancy prevention and care programs (see references).

Secretary Bowen's Teen Pregnancy Prevention Initiative

In 1986, HHS Secretary Bowen made teen pregnancy prevention a priority issue for the Department. He assembled an interdepartmental task force which initiated a number of activities. Its basic assumption was that while teen pregnancy was clearly a national problem, it could be most effectively addressed at the local level.

- A **Secretary's Panel on Teen Pregnancy Prevention** was established composed of representatives from national, youth-serving agencies and a Resource Panel of experts. After a year of meetings and consultations the Panel issued a report to the public which listed a number of organizational resources and presented a series of guidelines to local communities for the coalition building activities deemed essential to community-wide pregnancy prevention efforts (Family Support Administration, 1989). In addition, the Panel selected five pilot test sites to receive initial seed money grants of $60,000 to launch such community-based efforts. The sites are in Baltimore, Milwaukee, Minneapolis, Tulsa and Washington, D.C. A contractor, The Circle, Inc., McClean Va., is responsible for administering these grants and providing technical assistance.

- The **SHARE Resource Center on Teen Pregnancy Prevention** was also created by the Secretary's Initiative within Project SHARE (a federal clearinghouse on human services management). The Resource Center produces a fact sheet series which focuses on topics such as male responsibility, AIDS, planning prevention programs and so forth. Information on teen pregnancy prevention material is available through searches of the SHARE bibliographic data base. A new Media Database has also been established. Information on publications and custom searches are available from SHARE, P.O. Box 2309, Rockville, Md. 20852; or by phone 800-537-3788.

SELECTED REFERENCES

Berrueta-Clement, J., Schweinhart, L.J., Barnett, W.S., Epstein, A.S., Weikart, D. *Changed Lives: The Effects of the Perry Pre-School Program on Youth Through Age 19.* 1984 report from the High-Scope Educational Research Foundation, Ypsilanti, MI.

Brooks-Gunn, J., Paikoff, R.L. "Taking No Chances: Teenage Pregnancy Prevention Programs" in *American Psychologist,* forthcoming issue. Reprint requests from Dr Brooks-Gunn, Educational Testing Service, Princeton, NJ 08541.

Burt, M.R., Levy, F. "Estimates of Public Costs for Teenage Childbearing: A Review of Recent Studies and Estimates of 1985 Public Costs." in Hofferth, S.L., Hayes, C.D. eds. *Risking the Future, Vol II.* Washington, D.C.: National Academy Press, 1987.

Card, J.J. Ed. *Evaluating Programs Aimed at Preventing Teenage Pregnancies*. A report of the Data Archive on Adolescent Pregnancy and Pregnancy Prevention, 1989. Available from Sociometrics Corporation, 685 High Street, 2E, Palo Alto, CA 94301.

Card, J.J., Reagan, R.T., Ritter, P.E. *Sourcebook of Comparison Data for Evaluating Adolescent Pregnancy and Parenting Programs*. Report from the Data Archive on Adolescent Pregnancy and Pregnancy Prevention, 1988. Available from Sociometrics Corporation, 685 High Street, 2E, Palo Alto, CA 94301.

Center for the Study of Social Policy. *New Futures: Plans for Assisting At Risk Youth in Five Cities*. Revised report, 1989. Available from the Annie E. Casey Foundation, 31, Brookside Drive, Greenwich, CT 06830.

Center for the Study of Social Policy. *Strategic Planning Guide for the New Futures Initiative*. A planning guide for communities concerned to address the multiple problems of high-risk youth. 1987. Available from the Annie E. Casey Foundation, 31, Brookside Drive, Greenwich, CT 06830.

Child Trends, Inc. *U.S. Children and Their Families: Current Conditions and Recent Trends*. Report prepared for the House Select Committee on Children, Youth and Families, U.S. Congress, Washington, D.C.: U.S. Government Printing Office, Forthcoming, 1989.

Dryfoos, J.G. "School-Based Health Clinics: Three Years of Experience." *Family Planning Perspectives*. Vol 20, No 4, July/August 1988: 193-199.

Family Research Council. "School-based Health Clinics: An Analysis of the Johns Hopkins Study." A research paper prepared by Tobin W. Demsko, research analyst. Available from Family Research Council, 601 Pennsylvania Ave. N.W., Suite 901, Washington, D.C. 20004.

Family Support Administration. *On Teen Pregnancy Prevention*. A Report from the Secretary's Panel, U.S. Department of Health and Human Services. January 1989. Available from SHARE Resource Center on Teen Pregnancy Prevention, P.O. Box 2309, Rockville, MD 20852.

Forrest, J.D., Silverman, J. "What Public School Teachers Teach About Preventing Pregnancy, AIDS and Sexually Transmitted Disease." *Family Planning Perspectives*, Vol 21, No 2, March/April 1989: 65-72

Hayes, C.D. *Risking the Future: Adolescent Sexuality, Pregnancy and Childbearing*. Final Report of the National Research Council's Panel on Adolescent Pregnancy and Childbearing. Vol I. Washington, D.C.: National Academy Press, 1987.

Higgins, P. *Teenage Pregnancy: An Intractable Problem?* A literature review. Paper prepared for the Prevention Planning Project, Amherst H. Wilder Foundation, 919 La Fond Ave., St Paul, MN 55104.

Hofferth, S.L. and Miller, B.C. "An Overview of Adolescent Pregnancy Prevention Programs and Their Evaluations" in *Evaluating Programs Aimed at Preventing Teenage Pregnancies*. See Card, J.J., ed. 1989.

Hofferth, S.L., Hayes, C.D., eds. *Risking the Future: Adolescent Sexuality, Pregnancy and Childbearing*. Vol II, Working Papers and Statistical Appendices, Washington, D.C.: National Academy Press, 1987. Especially relevant are these chapters written by Sandra Hofferth: "Factors Affecting Initiation of Sexual Intercourse" (pp 7-35); "Contraceptive Decision-Making Among

Adolescents" (pp 56-77); and "The Effects of Programs and Policies on Adolescent Pregnancy and Childbearing" (pp 207-263).

Kenney, A.M., Guardado, S., Brown, L. "Sex Education and AIDS Education in the Schools: What States and Large School Districts Are Doing." *Family Planning Perspectives*. Vol 21, No 2, March/April 1989: 56-64.

Kirby, D. *An Evaluation of Six Selected School-Based Clinics. Final Report*. Washington, D.C.: Center for Population Options, forthcoming in 1989.

Kirby, D. *Sexuality Education: An Evaluation of Programs and Their Effects*. Santa Cruz, CA: Network Publications, 1984.

Kirby, D., Harvey, P.D., Claussenius, D., Novar, M. "A Direct Mailing About Condom Use: Its Impact on Knowledge, Attitudes and Sexual Behavior." *Family Planning Perspectives*. Vol 21, No 1, Jan/Feb 1989. pp. 12-18.

Lerman R., Ooms, T. *Family Influences on Transition to the Adult Job Market*, 1988. Paper commissioned by Youth and America's Future, William T. Grant Foundation, Commission on Work, Family and Citizenship. Available from the Family Impact Seminar, 1100 Seventeenth Street, NW, Tenth Floor, Washington, D.C. 20036.

Lovick, S.R., Stern, R. *School-Based Clinics: 1988 Update*. A report prepared by the Support Center for School-Based Clinics, 1989. Available from the Center for Population Options, 1012, 14th St., NW, Washington, D.C. 20005.

Marsiglio, W., Mott, F.L. "The Impact of Sex Education on Sexual Activity, Contraceptive Use and Premarital Pregnancy Among American Teenagers." *Family Planning Perspectives*, Vol 18, No 4, July/August 1986: 151-162.

Miller, B.C. "Advances in the Evaluation of Adolescent Pregnancy Programs." Paper presented at the Psychosocial Workshop preceding the Annual Meeting of the Population Association of America, March 1989. Available from Professor Miller, Department of Family and Human Development, Utah State University, Logan, UT 84322.

Moore, K.A. *Facts At a Glance, 1988*. Annual updated fact sheets related to teen pregnancy and childbearing. Available from Child Trends, Inc., 2100 M St., NW, Suite 610, Washington, D.C. 20037.

Moore, K.A., Caldwell, S.B. "The Effect of Government Policies on Out-of-Wedlock Sex and Pregnancy." *Family Planning Perspectives*, Vol 9, No 4, July/August 1977: 164-169.

Mueller, D.P., Higgins, P.S. *Funders' Guide Manual: A Guide to Prevention Programs in Human Services, Focus on Children and Adolescents*. A 1988 report of the Prevention Planning Project, Amherst Wilder Foundation, 919, Lafond Avenue, St. Paul, MN 55104. Also reprinted in Card, J.J., ed. 1989.

Musick, J.S. *Changing Lives: An Interventionist's Perspective on Adolescent Childbearing*. Manuscript in preparation, prepared for the Rockefeller Foundation.

Olsen J.A., Weed, S.E. "Effects of Family Planning Programs on Teenage Pregnancy--Replication and Extension" in *Family Perspectives*, 1987

Olsen, J.A., Weed, S.E., "Effects of Family-Planning Programs for Teenagers on Adolescent Birth and Pregnancy Rates" in *Family Perspectives*, 1986, 20 (October): 153-179.

Ooms, T., ed. *Teenage Pregnancy in a Family Context: Implications for Policy*. Philadelphia, Temple University Press, 1981.

Philliber, S., Allen, J. "Teen Outreach: Data from the Fourth Year of the National Replication." Report prepared in 1989. Available from Philliber Research Associates, 145 Lucas Avenue, Accord, NY 12404.

Pittman, K., Adams, G. *Teenage Pregnancy: An Advocates Guide to the Numbers*. A report of the Adolescent Pregnancy Prevention Clearinghouse. Washington, D.C.: Children's Defense Fund, 1988.

Pittman, K., Adams-Taylor, S., O'Brien, R. *The Lessons of Multi-Site Initiatives Serving High-Risk Youths*. An Adolescent Pregnancy Prevention Clearinghouse Report. Washington, D.C.: Children's Defense Fund, 1989.

Polit, D.F., Quint, J.C., Riccio, J.A. *The Challenge of Serving Teenage Mothers: Lessons from Project Redirection*. New York: Manpower Demonstration Research Corporation, 1988.

Sipe, C., Grossman, J., Milliner J., *Summer Training and Education Program: Report on 1987 Experience*. Philadelphia; Public/Private Ventures, 1988.

Smollar, J., Youniss, J. Ooms, T. *Family Relationships of Adolescents in Crisis: An Assessment of Research and Programs*, 1986. Available from the Family Impact Seminar, 1100 Seventeenth Street NW, Tenth Floor, Washington, D.C. 20036.

Sonenstein, F.L., Pleck, J.H., Ku, L.C. "At Risk of AIDS: Behaviors, Knowledge and Attitudes Among a National Sample of Adolescent Males." Paper prepared for the Annual Meeting of the Population Association of America, March 1989. Available from Dr. Sonenstein, Florence Heller School, Brandeis University, Waltham, MA.

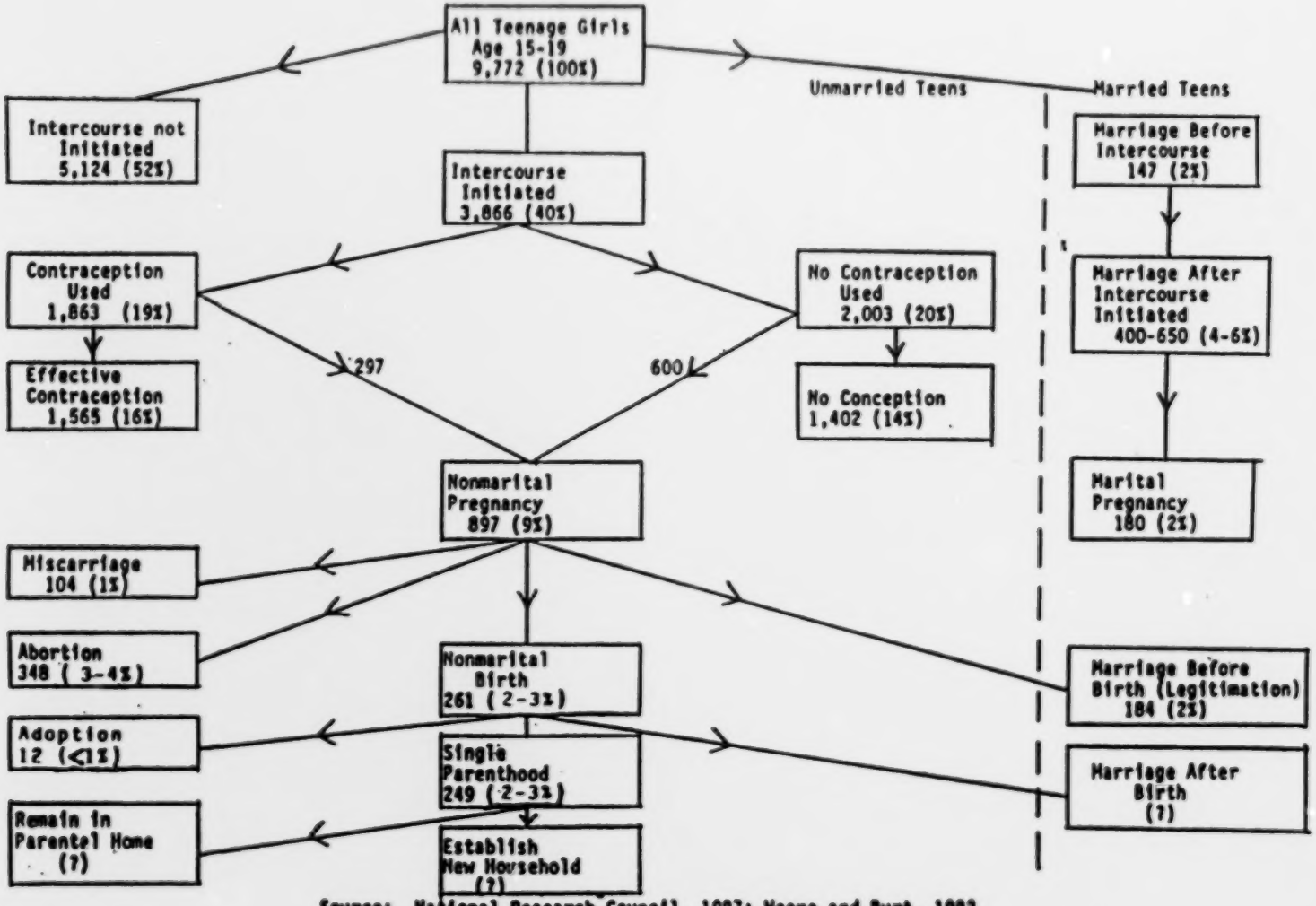
Stout, J.W., Rivara, F.P. "Schools and Sex Education: Does It Work?" *Pediatrics*, Vol 83, No 3, March 1989: 375-379.

Trussell, J. "Teenage Pregnancy in the United States." *Family Planning Perspectives*. Vol 20, No 6, Nov/Dec 1988: 262-272.

Vincent, M.L., Clearie, A.F., Schluchter, M.D. "Reducing Adolescent Pregnancy Through School and Community-Based Education." *Journal of the American Medical Association*, Vol 257, No 24, June 26, 1987: 3382-3386.

FIGURE 1

Estimated Numbers (Thousands) of Teenage Girls Involved in Various Decisions and Outcomes Related to Sexuality and Pregnancy, 1982

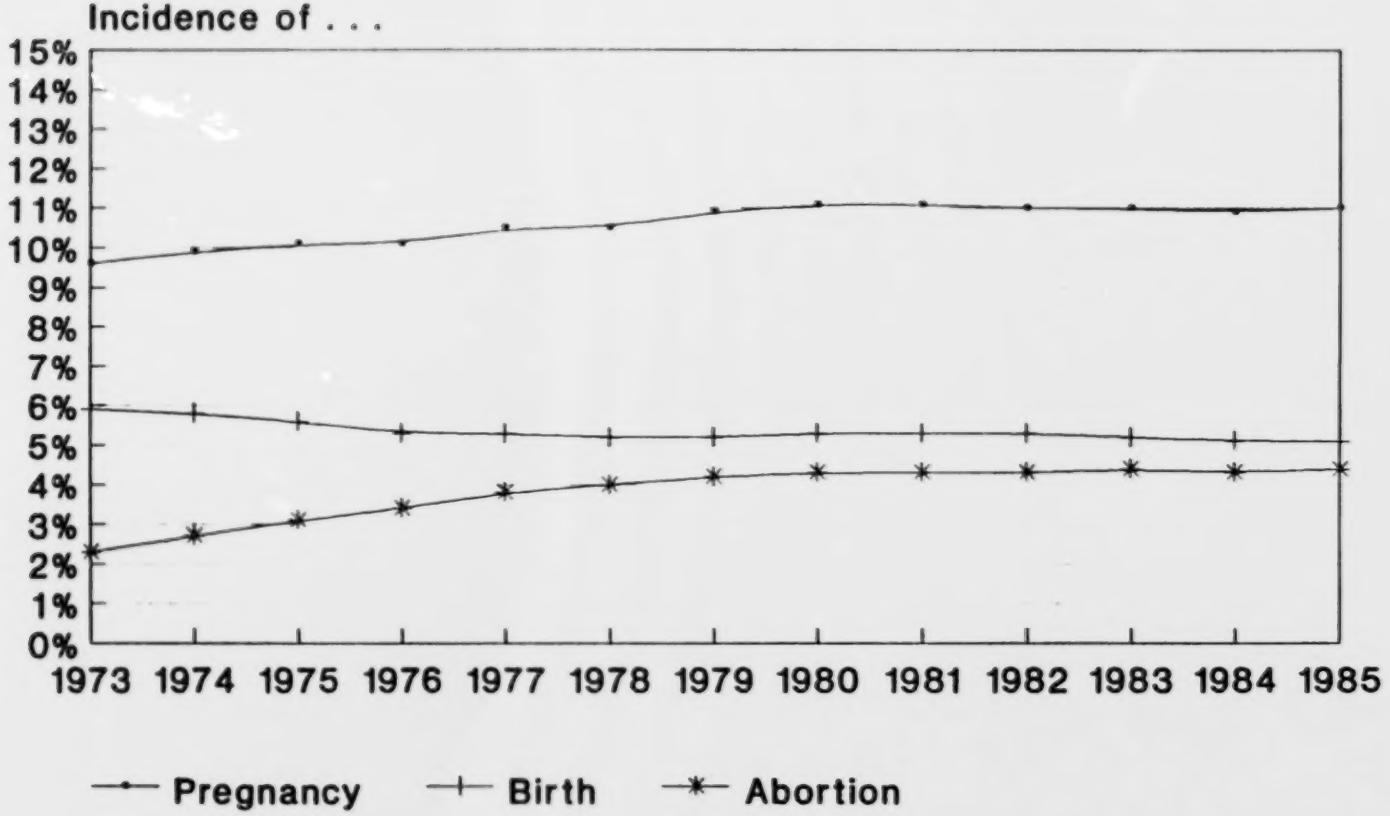


Source: National Research Council, 1987; Moore and Burt, 1982.

(From: Higgins, P. Teenage Pregnancy: An Intractable Problem? A supplementary report to Funder's Guide Manual, Amherst H Wilder Foundation See References.)

Figure 2

Pregnancy, Birth, and Abortion among Teens Age 15-19



Prepared by Kristin Moore Ph.D., Child Trends Inc.